

Appendix 4

Endangered and Threatened Species

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Maine Endangered Species Act (MESA)

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§12801. Declaration of purpose

The Legislature finds that various species of fish or wildlife have been and are in danger of being rendered extinct within the State of Maine, and that these species are of esthetic, ecological, educational, historical, recreational and scientific value to the people of the State. The Legislature, therefore, declares that it is the policy of the State to conserve, by according such protection as is necessary to maintain and enhance their numbers, all species of fish or wildlife found in the State, as well as the ecosystems upon which they depend. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
This subchapter and chapter 631 are established to carry out the purposes of this section. [2003, c. 573, §5 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]

§12802. Commissioner's authority, investigations and programs

1. **Investigations.** The commissioner may conduct investigations in order to develop information relating to population size, distribution, habitat needs, limiting factors and other biological and ecological data relating to the status and requirements for survival of any species of fish or wildlife occurring in the State, whether endangered or not. [2003, c. 614, §9 (aff); c. 655, Pt. B, §308 (amd); §422 (aff).]
2. **Programs.** The commissioner may develop programs to enhance or maintain the populations described in subsection 1. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

§12803. Designation of endangered species

1. **Standards.** The commissioner shall recommend a species to be listed as

endangered or threatened whenever the commissioner finds one of the following to exist: [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

- A. The present or threatened destruction, modification or curtailment of its habitat or range; [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
- B. Overutilization for commercial, sporting, scientific, educational or other purposes; [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
- C. Disease or predation; [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
- D. Inadequacy of existing regulatory mechanisms; or [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
- E. Other natural or manmade factors affecting its continued existence within the State. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

2. Commissioner's duties. In recommending a species to be listed as endangered or threatened, the commissioner shall: [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

- A. Make use of the best scientific, commercial and other data available; [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
- B. Consult, as appropriate, with federal agencies, other interested state agencies, other states having a common interest in the species and interested persons and organizations; and [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
- C. Maintain a list of all species that the Legislature has designated to be endangered or threatened, naming each species by both its scientific and common name, if any, and specifying over what portion of its range each species so designated is endangered or threatened. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

3. Legislative authority. The Legislature, as sole authority, shall designate a species as a state endangered or state threatened species. The list of state endangered or state threatened species by common name, scientific name and status is as follows: [2003, c. 573, §6 (rpr); §8 (aff); c. 614, §9 (aff); c. 655, Pt. C, §§3, 6 (aff).]

- A. Least tern, *Sterna albifrons*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- B. Golden eagle, *Aquila chrysaetos*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- C. Piping plover, *Charadrius melodus*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- D. Sedge wren, *Cistothorus platenis*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- E. Grasshopper sparrow, *Ammodramus savannarum*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- F. Box turtle, *Terrapene carolina*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]

- G. Black racer, *Coluber constrictor*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- H. Roseate tern, *Sterna dougallii*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- I. Northern bog lemming, *Synaptomys borealis*, threatened; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- J. Blanding's turtle, *Emydoidea blandingii*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- K. Black tern, *Chlidonias niger*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- L. American pipit, *Anthus rubescens*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- M. Peregrine falcon, *Falco peregrinus*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- N. Flat-headed mayfly, *Epeorus frisoni*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- O. Ringed boghaunter, *Williamsonia lintneri*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- P. Clayton's copper, *Lycaena dorcas claytoni*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- Q. Edwards' hairstreak, *Satyrium edwardsii*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- R. Hessel's hairstreak, *Mitoura hesseli*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- S. Katahdin arctic, *Oenis polixenes katahdin*, endangered; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- T. Spotted turtle, *Clemmys guttata*, threatened; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- U. Bald eagle, *Haliaeetus leucocephalus*, threatened; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- V. Razorbill, *Alca torda*, threatened; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- W. Atlantic puffin, *Fratercula arctica*, threatened; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- X. Harlequin duck, *Histrionicus histrionicus*, threatened; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- Y. Arctic tern, *Sterna paradisaea*, threatened; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- Z. Upland sandpiper, *Bartramia longicauda*, threatened; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]
- AA. Swamp darter, *Etheostoma fusiforme*, threatened; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]

BB. Tidewater mucket, *Leptodea ochracea*, threatened; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]

CC Yellow lampmussel, *Lampsilis cariosa*, threatened; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]

DD. Tomah mayfly, *Siphonisca aerodromia*, threatened; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]

EE. Pygmy snaketail, *Ophiogomphus howei*, threatened; [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]

FF. Twilight moth, *Lycia rachelae*, threatened; and [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]

GG. Pine barrens zanclognatha, *Zanclognatha martha*, threatened. [2003, c. 573, §6 (new); §8 (aff); c. 655, Pt. C, §§3, 6 (aff).]

4. Process for recommendation; notice and hearings. Prior to recommending an addition, deletion or other change to the endangered and threatened species listed in subsection 3, the commissioner shall provide for public notice and public hearings on that proposed recommendation in accordance with the provisions of Title 5, chapter 375, subchapter 2. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

5. Designation by Legislature. The Legislature may not amend the list of endangered or threatened species in subsection 3 except upon the recommendation of the commissioner. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

§12804. Conservation of endangered species

1. Conservation of nongame and endangered species. The commissioner may establish such programs as are necessary to bring any endangered or threatened species to the point where it is no longer endangered or threatened, including: [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

- A. Acquisition of land or aquatic habitat or interests in land or aquatic habitat; [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
- B. Propagation; [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
- C. Live trapping; [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
- D. Transplantation. Prior to the transplantation, introduction or reintroduction of an endangered or threatened species in the State, the commissioner shall, in conjunction with the Atlantic Salmon Commission, when appropriate, develop a recovery plan for that species, conduct a public hearing on that recovery plan pursuant to Title 5, Part 18 and submit that plan to the joint standing committee of the Legislature having jurisdiction over inland fisheries and wildlife matters. The introduction or reintroduction of that species must be conducted in accordance with the recovery plan developed under this paragraph and may not begin sooner than 90 days after all conditions of this paragraph have been met; and [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

- E. In the extraordinary case where population pressures within a given group ecosystem can not be otherwise relieved, regulated taking. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
2. **Habitat.** For species designated as endangered or threatened under this subchapter the commissioner may by rule identify areas currently or historically providing physical or biological features essential to the conservation of the species and that may require special management considerations. Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A. [2003, c. 614, §9 (aff); c. 655, Pt. B, §309 (amd); §422 (aff).]
 3. **Protection guidelines.** The commissioner may by rule develop guidelines for the protection of species designated as endangered or threatened under this subchapter. Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A. [2003, c. 614, §9 (aff); c. 655, Pt. B, §309 (amd); §422 (aff).]
 4. **Annual report.** The commissioner shall submit a written report by January 1st of each year to the joint standing committee of the Legislature having jurisdiction over inland fisheries and wildlife matters and the joint standing committee of the Legislature having jurisdiction over marine resources matters describing the status of all current and planned programs, activities and rules of the department pertaining to the conservation or management of endangered or threatened species. When appropriate, this report may be combined with any transplantation report required under subsection 1, paragraph D. The commissioner shall notify the Legislature by January 1st of each year that the report has been delivered. [2003, c. 573, §7 (amd); c. 614, §9 (aff).]

§12805. Cooperative agreements

The commissioner may enter into agreements with federal agencies, other states, political subdivisions of this State or private persons for the establishment and maintenance of programs for the conservation of endangered or threatened species and may receive all federal funds allocated for obligations to the State pursuant to these agreements. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

§12806. State and local cooperation

1. **Review.** A state agency or municipal government may not permit, license, fund or carry out projects that will: [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
 - A. Significantly alter the habitat identified under section 12804, subsection 2 of any species designated as threatened or endangered under this subchapter; or [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
 - B. Violate protection guidelines set forth in section 12804, subsection 3. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

The commissioner shall make information under section 12804 available to all other state agencies and municipal governments for the purposes of review. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

2. **Variance.** Notwithstanding subsection 1, state agencies and municipal governments may grant a variance from this section provided that: [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
 - A. The commissioner certifies that the proposed action would not pose a significant risk to any population of endangered or threatened species within the State; and [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
 - B. A public hearing is held on the proposed action. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
3. **Pending applications.** Notwithstanding Title 1, section 302, applications pending at the time of adoption of habitats and guidelines under section 12804, subsections 2 and 3 are governed by this section. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

§12807. Introduction of wolves to State; approval

A person may not release a wolf in the State for the purpose of reintroducing that species into the State without the prior approval of both Houses of the Legislature and the commissioner. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

A person who violates this section commits a Class E crime. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

§12808. Misuse of endangered or threatened species

For the purposes of this section, "to take," "take" and "taking" mean the act or omission that results in the death of any endangered or threatened species. [2003, c. 614, §9 (aff); c. 655, Pt. B, §310 (amd); §422 (aff).]

1. **Prohibited acts regarding endangered or threatened species; negligence.** Except as provided in subsections 2 and 3, a person may not negligently: [2003, c. 614, §9 (aff); c. 655, Pt. B, §311 (rpr); §422 (aff).]
 - A. Import into the State or export out of the State any endangered or threatened species. A person who violates this paragraph commits a Class E crime; [2003, c. 614, §9 (aff); c. 655, Pt. B, §311 (rpr); §422 (aff).]
 - B. Hunt, take, trap or possess any endangered or threatened species within the State. A person who violates this paragraph commits a Class E crime; [2003, c. 614, §9 (aff); c. 655, Pt. B, §311 (rpr); §422 (aff).]
 - C. Possess, process, sell, offer for sale, deliver, carry, transport or ship, by any means whatsoever, any endangered or threatened species or any part of an endangered or threatened species. A person who violates this paragraph commits a Class E crime; or [2003, c. 614, §9 (aff); c. 655, Pt. B, §311 (rpr); §422 (aff).]

- D. Feed, set bait for or harass any endangered or threatened species. A law enforcement officer, as defined in Title 25, section 2801-A, subsection 5, must issue a warning to a person who violates this paragraph for the first time. A person who violates this paragraph after having previously been given a warning under this paragraph commits a Class E crime. [2003, c. 614, §9 (aff); c. 655, Pt. B, §311 (rpr); §422 (aff).]

1-A. Prohibited acts regarding endangered or threatened species; intentional.

Except as provided in subsections 2 and 3, a person may not intentionally: [2003, c. 655, Pt. B, §312 (new); §422 (aff).]

- A. Import into the State or export out of the State any endangered or threatened species. A person who violates this paragraph commits a Class D crime; [2003, c. 655, Pt. B, §312 (new); §422 (aff).]
- B. Hunt, take, trap or possess any endangered or threatened species within the State. A person who violates this paragraph commits a Class D crime; [2003, c. 655, Pt. B, §312 (new); §422 (aff).]
- C. Possess, process, sell, offer for sale, deliver, carry, transport or ship, by any means whatsoever, any endangered or threatened species. A person who violates this paragraph commits a Class D crime; or [2003, c. 655, Pt. B, §312 (new); §422 (aff).]
- D. Feed, set bait for or harass any endangered or threatened species. A law enforcement officer, as defined in Title 25, section 2801-A, subsection 5, must issue a warning to a person who violates this paragraph for the first time. A person who violates this paragraph after having previously been given a warning under this paragraph commits a Class D crime. [2003, c. 655, Pt. B, §312 (new); §422 (aff).]

2. Exceptions for certain purposes. Notwithstanding subsections 1 and 1-A or section 10650 as it applies to rules adopted in accordance with this subchapter, the commissioner may: [2003, c. 614, §9 (aff); c. 655, Pt. B, §313 (amd); §422 (aff).]

- A. Under such terms and conditions as the commissioner may prescribe, permit any act prohibited by this section or by rule for educational or scientific purposes or to enhance the propagation or survival of an endangered or threatened species; and [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
- B. Under such terms and conditions as the commissioner may prescribe, permit any endangered or threatened species that enters the State and is being transported to a point outside the State to be so entered and transported without restriction in accordance with the terms of any federal or state permit. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

3. Exceptions; incidental take plan. Notwithstanding subsection 1, the commissioner may: [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

- A. Permit the taking of any endangered species or threatened species if:
 - (1) Such taking is incidental to, and not the purpose of, carrying out an otherwise lawful activity;
 - (2) The taking will not impair the recovery of any endangered species or threatened species; and

(3) The person develops and implements an incidental take plan approved by the commissioner to take an endangered species or threatened species pursuant to paragraph B; and [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

B. Allow a plan that minimizes the incidental taking of an endangered species or threatened species that specifies the following:

- (1) A description of the specific activities sought to be authorized by the incidental take permit and an analysis of potential alternatives;
- (2) The individual and cumulative effects that may reasonably be anticipated to result from the proposed actions covered by the plan;
- (3) The recovery measures the applicant will implement to prevent, minimize and mitigate the individual and cumulative effects and any provisions that are necessary to prevent, minimize and mitigate circumstances that are likely to impair the recovery of any endangered or threatened species covered by the plan;
- (4) The procedures for monitoring the effectiveness of the recovery measures in the plan;
- (5) The anticipated costs of implementing the plan and the availability of necessary funding for the applicant to implement the plan; and
- (6) Other modifications to the plan or other additional measures, if any, that the department may require and such other matters as the department determines to be necessary for the recovery of species consistent with this section. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

The department shall seek input from knowledgeable individuals or groups on each incidental take plan for endangered or threatened species. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

If any person fails to abide by the terms of any permit authorizing the incidental taking of an endangered or threatened species, the permit must be immediately suspended or revoked. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

§12809. Judicial enforcement

1. **General.** In the event of a violation of this subchapter, any rule adopted pursuant to this subchapter or any license or permit granted under this subchapter, the Attorney General may institute injunctive proceedings to enjoin any further violation, a civil or criminal action, or any appropriate combination of those proceedings without recourse to any other provision of law administered by the department. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
2. **Restoration.** The court may order restoration of any area affected by any activity found to be in violation of this subchapter, any rule adopted pursuant to this subchapter or any license or permit granted under this subchapter, to its condition prior to the violation or as near to that condition as possible. When the

court finds that the violation was willful, the court shall order restoration under this subchapter, unless the restoration would result in: [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

- A. A threat to public health and safety; [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
- B. Environmental damage; or [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]
- C. A substantial injustice. [2003, c. 414, Pt. A, §2 (new); c. 614, §9 (aff).]

Listing Criteria for Endangered and Threatened Species

09-137 DEPARTMENT OF INLAND FISHERIES AND WILDLIFE

Chapter 8: ENDANGERED SPECIES

8.01 Agency Jurisdiction

- A. The Commissioner has the authority to recommend to the Legislature the designation of any species of fish or wildlife found in the State (12 MRSA §7751) as endangered [12 MRSA §7001(7)] or threatened [12 MRSA §7001 (36) in accordance with the provisions of the Maine Endangered Species Act (12 MRSA §7753). The Legislature has sole authority to designate a species as endangered or threatened.
- B. When IF&W has overlapping jurisdiction with another state agency for a species (i.e. the Atlantic Salmon Authority and Atlantic salmon or the Department of Marine Resources and marine mammals, marine turtles, marine fish, marine invertebrates, and anadromous and catadromous species other than Atlantic salmon when in tidal waters), or another state agency has primary responsibility for a species (i.e. marine fish), IF&W will not recommend that species as threatened or endangered until the agency with overlapping or primary jurisdiction has reviewed the listing request.

8.02 Designation of Endangered and Threatened Species

- A. In determining whether a species meets one or more of the standards for designating a species as endangered or threatened as listed in 12 M.R.S.A. §7753(1), qualifications for consideration for listing, population guidelines for risk of extinction, and other factors will be considered. For the purposes of this chapter, "species" will mean "species" or "subspecies" and "populations" will mean all individuals of the species, statewide.

1. Qualifications for Consideration for Listing

A species may only be recommended for listing as a state endangered or threatened species if it meets all of the following qualifications:

- a. it is a species of mammal, bird, fish, amphibian, reptile, or invertebrate wild by nature as distinguished from domestic species;
- b. it is an indigenous species to Maine, meaning it is not an exotic deliberately or accidentally introduced into Maine, the United States, or North America;

- c. it is a species that spends some portion of its annual cycle in Maine, including breeding, migration, or wintering, but is not a vagrant or accidental visitor;
- d. it is a species that has not expanded into Maine within the past 50 years as part of a general range expansion, unless it historically occurred in Maine or is threatened or declining throughout a significant portion of its total range;
- e. it is a species that has not been reintroduced into Maine as part of an experimental wildlife management program, unless listing is part of the reintroduction plan; and
- f. it is taxonomically classified no finer than a subspecies, unless federally Endangered or Threatened.

2. Population Guidelines for Risk of Extinction

The following population characteristics, when available, will be considered by the Commissioner when recommending whether a species meets the definition of Endangered or Threatened as provided in 12 M.R.S.A. §7001 (7 and 36);

- a. population viability,
- b. population size,
- c. population trend,
- d. population distribution,
- e. population fragmentation, and
- f. endemism, meaning the species only occurs in Maine.

3. Other Factors

In addition to population guidelines (2) above, other factors, including range or habitat loss, disease, predation, over-utilization, inadequacy of regulations, and other natural or human-related factors as measured through observation, inference, or projection, will be considered when determining whether to recommend a species for listing as Endangered or Threatened as provided in 12 M.R.S.A. §7001 (7 and 36).

B. Review of List

- 1. At least every 5 years, the Department shall initiate a review of the designation of species as Endangered or Threatened to determine

if any species should be recommended to be added to, deleted from, or changed between the lists.

2. Requests to add, change, or remove species on the lists may be submitted to the Commissioner for review and recommendation at any time.
- C. Prior to recommending an addition, deletion or other change to the endangered and threatened species list, the Commissioner shall provide for public notice and public hearings on the proposed recommendation in accordance with the provisions of Title 5, chapter 375, subchapter II.

8.03 Federally Listed Species (*Repealed*)

8.04 The following species have been designated by the Legislature to be endangered or threatened species within the State of Maine:

Common Name	Scientific Name	Status	Distribution
Least Tern	<i>Sterna albifrons</i>	Endangered	Statewide
Golden Eagle	<i>Aquila chrysaetos</i>	Endangered	Statewide
Piping Plover	<i>Charadrius Melodus</i>	Endangered	Statewide
Sedge Wren	<i>Cistothorus platensis</i>	Endangered	Statewide
Grasshopper sparrows	<i>Ammodramus avannarum</i>	Endangered	Statewide
Box Turtle	<i>Terrapene carolina</i>	Endangered	Statewide
Black Racer	<i>Coluber constrictor</i>	Endangered	Statewide
Roseate Tern	<i>Sterna dougallii</i>	Threatened	Statewide
Northern Bog Lemming	<i>Synaptomys borealis</i>	Threatened	Statewide
Loggerhead Turtle	<i>Caretta caretta</i>	Threatened	Statewide
Blanding's Turtle	<i>Emydoidea Blandingii</i>	Threatened	Statewide
Spotted Turtle	<i>Clemmys guttata</i>	Threatened	Statewide
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Threatened	Statewide

**MAINE
ENDANGERED AND THREATENED SPECIES
LISTING HANDBOOK**

A Guide for Implementing
The Maine Endangered Species Act

Maine Department of Inland Fisheries and Wildlife
Augusta, Maine

September 30, 1993

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INTRODUCTION

The Maine Endangered Species Act (12 MRSA) was passed by the Maine Legislature in 1975 and is administered by the Maine Department of Inland Fisheries and Wildlife (MDIFW or the Department). The Act declares its purpose as follows:

"The legislature finds that various species of fish and wildlife have been and are in danger of being rendered extinct within the State of Maine, and that these species are of aesthetic, ecological, educational, historical, recreational, and scientific value to the people of the State. The Legislature, therefore, declares that it is the policy of the State to conserve, by according such protection as is necessary to maintain their numbers, all species of fish and wildlife found in the State, as well as the ecosystems upon which they depend."

To achieve that purpose, the Act sets forth two basic charges to the Department for action:

1. to conduct investigations on any species of fish or wildlife whether endangered or not to develop information on population size, distribution, habitat needs, limiting factors or other data relating to their status and requirements for survival and to develop the necessary programs to enhance or maintain them; and
2. for any of the preceding species warranting it, to designate them endangered or threatened, thereby making them eligible for additional recognition and protection under the law and to establish the programs necessary for their recovery.

To carry out those two charges, a list of the species warranting attention under the Act needs to be developed and maintained. This Handbook is intended to serve as a guide in accomplishing that task. Its purpose is to provide a comprehensive and biologically based system that: 1) identifies species in danger of extirpation from Maine, and 2) provides a guide for assigning those species to categories relative to their probabilities of extinction from Maine. Towards that end, this Handbook has two specific objectives:

1. to document and define the procedures, guidelines, and information used in developing and maintaining the categories and lists of species relative to Maine's Endangered Species Act; and
2. to provide guidelines for assigning species to the categories established to fulfill the charges of Maine's Endangered Species Act.

Several key points warrant explanation to assist in understanding and applying the concepts and guidelines presented in this Handbook.

1. The specific criteria in this Handbook are presented as guidelines to decision-making. Their purpose is to provide a structured, systematic examination of the interacting factors that place a species at risk of extirpation from Maine, based on the best scientific knowledge of the extinction process.
2. The decision to list a species in any category does not automatically assign a certain level of management, nor does it automatically commit resources or programs. That decision, as to the level, type, and degree of management any listed species will receive, is a subsequent and separate step to the listing process presented in this Handbook.

Separating those two steps enables species to be listed based on the biological facts, purely reflecting the species' likelihood of decline or extinction within Maine. The decision is made without being constrained by such things as limits on agency funding, staffing, jurisdiction, or management capabilities, by political concerns, or by the ease or difficulties of managing a species, or a species responsiveness or lack of responsiveness to management.

By having a second step regarding management priorities, more refined decisions are subsequently allowed. The feasibility, desirability and practicality of management are considered at the second step as is the recognition that various state agencies or branches of agencies may have applicable jurisdictions. This second step is addressed in various MDIFW Jobs and in MDIFW's Management Systems.

In summary, the first step recognizes and documents concern for a species by listing it in one of four categories while the second step looks pragmatically at programs for its protection and recovery. This Handbook addresses the first step.

3. This Handbook covers all aspects of the Department's Endangered Species Listing process, including both regulatory and policy level components. For example, the Maine Endangered Species Act statutorily establishes the categories of "Endangered" and "Threatened Species". Species are added to or deleted from these categories through rule-making procedures and the lists become regulations. Other administrative categories are established by policy not by regulation and are used for planning and informational purposes. They do not have the legal bearing of the first two categories.

This Handbook comprehensively documents both aspects. Although it is not intended to be used in its entirety for rule-making and regulation, certain parts of this Handbook, limited to references of "Endangered" and "Threatened" categories, are intended to serve as the basis for recommendations for rule-making.

DEFINITIONS

Statutory Definitions: State of Maine Inland Fisheries and Wildlife Laws; 12 MRSA PART 10 Chapter 701

Endangered species. “Endangered species” means any species of fish or wildlife which has been determined by the Secretary of the Interior of the United States pursuant to the United States Endangered Species Act of 1973, Public Law 93-205, as amended, or the commissioner pursuant to this chapter to be in danger of extinction throughout all or a significant portion of its range.

Threatened species. “Threatened species” means any species of fish or wildlife which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Fish. “Fish” means any cold-blooded, completely aquatic vertebrate characteristically having gills, fins and an elongated streamlined body usually covered with scales, and includes any physical part of a fish. The term refers to fish living predominately in inland waters, and anadromous and catadromous fish while in inland waters. Whenever the name of any fish, such as bass or trout, is used, it shall mean the named fish or any of its physical parts.

Wildlife. "Wildlife" means any species of the animal kingdom, except fish, which is wild by nature, whether or not bred or reared in captivity, and includes any part, egg or offspring thereof, or the dead body or parts thereof. Wildlife includes wild animals and wild birds.

Wild animal. "Wild animal" means a species of mammal, wild by nature, whether or not bred or reared in captivity, as distinguished from the common domestic animals, and includes any physical part of that species of animal. Whenever the name of any wild animal, such as deer or bear, is used, it shall mean the named wild animal or any of its physical parts.

Wild bird. "Wild bird" means a species of bird wild by nature, whether or not bred or reared in captivity, as distinguished from common domestic birds, and includes any physical part of that species of bird. Whenever the name of any wild bird, such as pheasant or eagle, is used, it shall mean the named wild bird or any of its physical parts.

Other Definitions as used in this Handbook:. (For the purposes of this Handbook)

Species: meaning species or subspecies.

Population: meaning all individuals of the species or subspecies, statewide, unless otherwise specified.

Endemic: meaning a species of fish or wildlife found only in Maine.

Cycle: periodically recurring changes forming a pattern over time.

Immigration Rate: the rate at which individuals are added to a population through interchange with other populations.

Discrete: distinct and separable.

Disjunct: disjoined, not attached to others.

Population Viability Analysis: a set of estimates that are the product of a systematic process for estimating species-, location-, and time-specific criteria for persistence.

LISTING CATEGORIES

Four categories are established to implement Maine's Endangered Species Act: Endangered; Threatened; Special Concern; and Extirpated. **Endangered and Threatened are established and named by statute. Special Concern and Extirpated are established administratively.** Six categories were established by MDIFW in 1986. In this Handbook the "Indeterminate Status" and "Watch List" categories from 1986 are eliminated through their incorporation into the remaining categories, as appropriate.

The melding of six categories into four was done for several reasons. First, the definitions of the two eliminated categories overlapped, considerably, with the remaining four. Also, they were established in 1986 largely due to our limited knowledge for many species. Much knowledge has been gained since 1986, greatly diminishing the need for these two categories. Additionally, the melding of Maine's six categories into four brings Maine's Endangered Species list into closer conformity with prevailing thinking, with recommendations from the Northeast Nongame Technical Committee, and with policies and species status lists of surrounding States and Provinces. For these reasons and for the sake of simplicity and administrative ease, four categories are recommended.

Brief definitions of the four categories follow. Detailed guidelines for assigning species to these categories are presented in the remaining sections of this Handbook.

Endangered Species: Any species of fish or wildlife which has been determined to be in danger of extinction throughout all or a significant portion of its range by the Secretary of the Interior of the United States pursuant to the United States Endangered Species Act of 1973, Public Law 93-205, as amended, or the Commissioner of the Maine Department of Inland Fisheries and Wildlife pursuant to the Maine Endangered Species Act, 12 MRSA, Chapter 713, subchapter V.

Threatened Species: Any species of fish or wildlife which is likely to become an Endangered Species within the foreseeable future throughout all or a significant portion of its range.

Special Concern Species: Any species of fish or wildlife that does not meet the criteria as Endangered or Threatened but is particularly vulnerable and could easily become a Threatened Species or an Endangered or Extirpated Species due to restricted distribution, low or declining numbers, specialized habitat needs or limits, or other factors, or is a species suspected to be Endangered or Threatened or likely to become so but for which insufficient data are available.

Extirpated Species: Any species that was at one time indigenous to Maine but has not been documented as occurring in Maine for the past 50 years.

LISTING PROCEDURES

MDIFW has the responsibility of maintaining a current and accurate listing of species in danger of extirpation from Maine. This section of the Handbook documents the Department's procedures for periodic reviews or requests to add, remove, or change Listed Species. This section, **after deletion of any references to the Special Concern and Extirpated Categories**, will serve as the basis for rule-making. By doing so, the basic procedures for reviewing the list of Endangered and Threatened Species will be specified in regulation.

4. Periodic Review: The Department shall initiate a review, at least every five years, of the designation of species as Endangered, Threatened, Special Concern, or Extirpated to determine if any species should be: a) added to or removed from the lists; or b) changed from one listing category to another. Department staff shall undertake the review, utilizing other experts as appropriate, and recommend actions to the Commissioner. Any action by the Commissioner, pertaining to the **Endangered or Threatened Categories**, shall be handled as defined under Maine's Administrative Procedures Act (APA).
5. Requests: Requests to add or remove species from the lists or change species from one category to another may be submitted to the Commissioner at any time for consideration. Requests may originate from public or private sources, including the Department. Department staff shall review the requests and recommend actions to the Commissioner. **Requests pertaining to either the "Endangered" or "Threatened" Categories** must be in the form of a petition to the Commissioner as defined under Maine's APA. Any action by the Commissioner, pertaining to **the Endangered or Threatened Categories**, shall be handled as defined under Maine's APA.
6. Interagency Coordination: When a State agency other than MDIFW has primary or overlapping jurisdiction for a species (i.e. the Atlantic Searun Salmon Commission and Atlantic Salmon; or The Department of Marine Resources and marine fish, invertebrates, and anadromous and catadromous species other than Atlantic salmon when in tidal waters), IF&W will only consider the species for listing if the request for listing has been reviewed by that agency, and that agency recommends to the Commissioner of MDIFW that the species be listed, or the request for listing has originated with that agency.

The decision as to whether to designate a species as Endangered, Threatened, Special Concern, or Extirpated, and the determination as to what Listing category to assign any species, shall be done in accordance with the Maine Endangered Species Act, other statutes and regulations of the State of Maine and the Maine Department of Inland Fisheries and Wildlife and shall be guided by the criteria and guidelines presented in this handbook.

QUALIFICATIONS FOR CONSIDERATION FOR LISTING

This section, "Qualifications for Consideration for Listing", sets forth the Department's policy regarding a species' eligibility for Listing. It lists several basic criteria a species must meet or fall within before it can be considered for listing in any one of the categories established, by the Department, to meet the provisions and purposes of the Maine Endangered Species Act. The categories, reflecting various levels of probability of extirpation from Maine, are Endangered, Threatened, Special Concern, and Extirpated.

After deletion of all references to the Special Concern and Extirpated Categories, this section will serve as the basis for rule-making. By doing so, the basic qualifications for considering species for listing as Endangered or Threatened Species will be specified in regulation.

Qualifications for Consideration for Listing:

A species can be considered for listing by MDIFW as an Endangered, Threatened, Special Concern, or Extirpated Species if it meets the following qualifications:

1. It is a wild species of mammal, bird, fish, amphibian, reptile or invertebrate;
2. It is an indigenous species to Maine, meaning it is not an exotic, deliberately or accidentally introduced into Maine, the United States, or North America by humans; and
3. It is a species that spends any portion of its annual life cycle in Maine, including breeding, migration, or wintering, and it is not a vagrant or accidental visitor.

Furthermore:

4. A species, for which there is evidence it has expanded its range into Maine within the past 50 years as part of a general range expansion and knowledge it did not occur in Maine prior to its range expansion, shall not qualify for consideration for listing unless the species is imperiled or declining throughout a significant portion of its total range;
5. A species reintroduced to Maine as part of a wildlife management program shall be judged on a case-by-case basis based on the intent of the introduction and the status of the species in Maine and range-wide.
6. Subspecies within Maine can be considered for listing. Finer taxonomic divisions, such as races or geographically distinct populations may be listed only as a result of:
 - a. such a listing under the U.S. Endangered Species Act; or
 - b. such consideration is limited to listing as "Special Concern".

LISTING GUIDELINES

The listing of a species in Maine is an indication that its risk of extinction from Maine is great enough to warrant concern and recognition. The listing category to which a species is assigned is a reflection of the relative magnitude of that species probability of extinction from Maine.

The following criteria are to be considered when recommending species for listing in Maine and the assignment of category. **The specific numbers cited are to be used as guidelines. The ultimate recommendation regarding listing status shall be based on the best available scientific information.**

Endangered Species: A species will be listed as Endangered if:

- A. Either of the following criteria are met:
 - 1. National Status It is federally listed as Endangered under the U.S. Endangered Species Act and Maine is included within the geographic boundaries of that listing; or
 - 2. Population Modeling A population viability analysis of the species gives a 30% or greater probability of extirpation from Maine within 20 years or 10 generations, whichever is longer;
- OR B. Any two of the following five criteria are met, statewide, in Maine:
 - 1. Population Size
 - a) It is a non-migratory or otherwise isolated population and the total population is estimated at fewer than 500 individuals or the breeding population at fewer than 200, or
 - b) It is a migratory or otherwise non-isolated population and the total population is estimated at fewer than 250 individuals or the breeding population at fewer than 100.
 - 2. Population Trend
 - a) After allowing for known cycles, a population decline of 50% or more has occurred within the past 5 years or 75% or more within the past 20 years, or
 - b) After allowing for known cycles, a decline in reproductive success or recruitment of young into the breeding age population of 50% or more has occurred within the past 5 years or 75% or more within the past 20 years.
 - 3. Population Distribution More than 90% of the population is found at fewer than 5 discrete, disjunct sites during any portion of the annual cycle.

4. Population Fragmentation The population is non-migratory or otherwise isolated (immigration rates less than 1 per year), its distribution is fragmented such that it occurs in discrete, disjunct sites, and there are no more than 2 of those sites with populations of 250 or more individuals.
5. Endemism The species is endemic to Maine.

Or

- C. One or more factors including habitat or range loss, overutilization, disease, predation, inadequacy of existing regulatory regulations, or other man-made factors leading, through observation, inference, or projection to a probability of extinction as characterized in A.2. under "Endangered Species".

Threatened Species: A species will be listed as Threatened if it is not listed as Endangered and:

- A. Any one of the following criteria are met:
 - 6. National Status It is federally listed as Threatened or Category I under the U.S. Endangered Species Act and Maine is included within the geographic boundaries of that listing; or
 - 7. Population Modeling A population viability analysis of the species gives a 20% or greater probability of extirpation from Maine within 30 years or 10 generations, whichever is longer.
- OR B. Any two of the following five criteria or any one of B.1., B.2., or B.3. under "Endangered" are met:
 - 8. Population Size
 - a) It is a non-migratory or otherwise isolated population and the total population is estimated at fewer than 1000 individuals or the breeding population at fewer than 400, or
 - b) It is a migratory or otherwise, non-isolated population and the total population is estimated at fewer than 500 individuals or the breeding population at fewer than 200.
 - 5. Population Trend
 - a) After allowing for known cycles, a population decline of 25% or more has occurred within the past 5 years or 50% or more within the past 20 years, or
 - b) After allowing for known cycles, a decline in reproductive success or recruitment of young into the breeding age population of 25% or more has occurred within the past 5 years or 50% or more within the past 20 years.
 - 6. Population Distribution More than 90% of the population is found at fewer than 8 discrete, disjunct sites at any portion of its annual cycle.
 - 7. Population Fragmentation The population is non-migratory or otherwise isolated (immigration rates less than 1 per year), its distribution fragmented such that it occurs in disjunct, discrete sites, and there are no more than 5 of those sites with populations of 250 or more individuals.
 - 8. Endemism The species is endemic to Maine.

- OR C. One or more factors including habitat or range loss, overutilization, disease, predation, inadequacy of existing regulatory regulations, or other man-made factors leading, through observation, inference, or projection to a probability of extinction as characterized in A.2. under "Threatened Species".

Special Concern Species: A species will be listed as Special Concern if the species is not listed as Endangered or Threatened and:

- A. Any one of the following criteria are met:
1. National Status It was federally listed as Category 2 under the U.S. Endangered Species Act and Maine is included within the geographic boundaries of that listing.
 2. Population Modeling A population viability analysis of the species gives a 10% or greater probability of extirpation from Maine within 100 years.
 3. Population Size
 - a) It is a non-migratory or otherwise isolated population and the total population is estimated at fewer than 2000 individuals or the breeding population at fewer than 800, or
 - b) It is a migratory or otherwise, non-isolated population and the total population is estimated at fewer than 1000 individuals or the breeding population at fewer than 400.
 9. Population Trend
 - a) After allowing for known cycles and intentional management actions, a population decline of 25% or more has occurred within the past 10 years or 50% or more within the past 75 years, or
 - b) After allowing for known cycles, a decline in reproductive success or recruitment of 25% or more has occurred within the past 10 years or 50% or more within the past 75 years.
 10. Population Distribution More than 90% of the population is found at fewer than 12 discrete, disjunct sites at any portion of its annual cycle.
 11. Population Fragmentation The population is non-migratory or otherwise isolated (immigration rates less than 1 per year), its distribution fragmented such that it occurs in disjunct, discrete sites, and there are no more than 5 of those sites with populations of 1000 or more individuals.
 12. Endemism The species is endemic or nearly endemic to Maine.
 13. Lack of Data It is a species that is believed could qualify for Endangered or Threatened listing but about which insufficient data are available to make that determination.

14. Declines Elsewhere The species currently occurs in Maine and is experiencing wide-spread declines throughout much of its range even if stable or increasing in Maine.

OR C. One or more factors including habitat or range loss, overutilization, disease, predation, inadequacy of existing regulatory regulations, or other man-made factors leading, through observation, inference, or projection to a probability of extinction as characterized in A.2. under "Special Concern Species".

Extirpated Species: A species will be listed as extirpated if:

It was at one time indigenous to Maine but has not been documented as occurring in Maine for the past 50 years.

APPENDIX A
Maine Endangered Species Act

The Maine Endangered Species Act
State of Maine, Inland Fisheries and Wildlife Laws

12 MRSA PART 10

CHAPTER 713
SUBCHAPTER V

ENDANGERED SPECIES

§7751. Declaration of purpose

The Legislature finds that various species of fish or wildlife have been and are in danger of being rendered extinct within the State of Maine, and that these species are of aesthetic, ecological, educational, historical, recreational and scientific value to the people of the State. The Legislature, therefore, declares that it is the policy of the State to conserve, by according such protection as is necessary to maintain and enhance their numbers, all species of fish or wildlife found in the State, as well as the ecosystems upon which they depend.

§7752. Commissioner's investigations and programs

1. **Investigations.** The commissioner may conduct investigations in order to develop information relating to population size, distribution, habitat needs, limiting factors and other biological and ecological data relating to the status and requirements for survival of any resident species of fish or wildlife, whether endangered or not.
2. **Programs.** The commissioner may develop programs to enhance or maintain these populations.

§7753. Designation of endangered species

1. **Standards.** The commissioner shall designate a species to be endangered or threatened whenever he finds one of the following to exist:
 - A. The present or threatened destruction, modification or curtailment of its habitat or range;
 - B. Overutilization for commercial, sporting, scientific, educational or other purposes;
 - C. Disease or predation;

- D. Inadequacy of existing regulatory mechanisms; or
 - E. Other natural or manmade factors affecting its continued existence within the State.
2. **Commissioner's duties.** In designating a species to be endangered or threatened, the commissioner shall:
- A. Make use of the best scientific, commercial and other data available to him;

- B. Consult, as appropriate with federal agencies, or other interested state agencies, other states having a common interest in the species and interested persons and organizations; and
- C. Maintain a list of all species which he has designated to be endangered or threatened, naming each species contained therein by both its scientific and common name, if any, and specifying over what portion of its range each species so designated is endangered or threatened, except that no species shall be added to or deleted from the list unless notice of the change is published and a public hearing thereon has been held in accordance with the procedures established in section 7035, subsection 1.

§7754. Conservation of endangered species

1. **Programs.** The commissioner may establish such programs as are necessary to bring any endangered or threatened species to the point where it is no longer endangered or threatened, including:
 - A. Acquisition of land or aquatic habitat or interests therein;
 - B. Propagation;
 - C. Live trapping;
 - D. Transplantation; and
 - E. In the extraordinary case where population pressures within a given group ecosystem cannot be otherwise relieved, regulated taking.
2. **Habitat** For species designated as endangered or threatened under this subchapter the commissioner may, by rule, pursuant to Title 5, chapter 375, identify areas currently or historically providing physical or biological features essential to the conservation of the species and which may require special management considerations.
3. **Protection guidelines.** The commissioner may, by rule, pursuant to Title 5, chapter 375, develop guidelines for the protection of species designated as endangered or threatened under this subchapter.

1987,c.800,S1

§7755. Cooperative agreements

The commissioner may enter into agreements with federal agencies, other states, political subdivisions of this State or private persons for the establishment and maintenance of programs for the conservation of endangered or threatened species and may receive all federal funds allocated for obligations to the State pursuant to these agreements.

§7755-A. State and local cooperation

1. **Review.** A state agency or municipal government shall not permit, license, fund or carry out projects that will:
 - A. Significantly alter the habitat identified under section 7754, subsection 2 of any species designated as threatened or endangered under this subchapter, or
 - B. Violate protection guidelines set forth in section 7754, subsection 3.

The commissioner shall make information under section 7754 available to all other state agencies and municipal governments for the purposes of review.

2. **Variance.** Notwithstanding subsection 1, state agencies and municipal governments may grant a variance from this section provided that:
 - A. The Commissioner of Inland Fisheries and Wildlife certifies that the proposed action would not pose a significant risk to any population of endangered or threatened species within the State; and
 - B. A public hearing is held on the proposed action.
3. **Pending applications.** Notwithstanding Title 1, section 302, applications pending at the time of adoption of habitats and guidelines under section 7754, subsections 2 and 3 shall be governed by these provisions.

1987,c.800,S2

§7756. Prohibited acts

1. **Misuse of endangered or threatened species.** A person is guilty, except as provided in subsection 2, of misuse of an endangered or threatened species if that person does any of the following:
 - A. Exports any endangered or threatened species from the State;
 - B. Hunts, traps or possesses any endangered or threatened species within the State;
 - C. Possesses, processes, sells, offers for sale, delivers, carries, transports or ships, by any means whatsoever, any endangered or threatened species; or
 - D. Deliberately feeds, set bait for or harasses any endangered or threatened species, except as allowed under subsection 2, paragraph A. A warning shall be issued for the first violation. The 2nd violation shall be punishable as a Class E crime.
2. **Exceptions.** Notwithstanding subsection 1, the commissioner may:
 - A. Under such terms and conditions as he may prescribe, permit any act prohibited by this section, for educational or scientific purposes or to enhance the propagation or survival of an endangered or threatened species; and
 - B. Under such terms and conditions as he may prescribe, permit any endangered or threatened species which enters the State and is being transported to a point outside the State to be so entered and transported without restriction in accordance with the terms of any federal or state permit.

§7758. Judicial enforcement

1. **General.** In the event of a violation of this subchapter, any rule adopted pursuant to this subchapter or any license or permit granted under this subchapter, the Attorney General may institute injunctive proceedings to enjoin any further violation, a civil or criminal action, or any appropriate combination of those proceedings without recourse to any other provision of law administered by the Department of Inland Fisheries and Wildlife.
2. **Restoration.** The court may order restoration of any area, affected by any activity found to be in violation of this subchapter, any rule adopted pursuant to this subchapter or any license or permit granted under this

subchapter, to its condition prior to the violation or as near to that condition as possible. When the court finds that the violation was willful, the court shall order restoration under this subchapter, unless the restoration would result in:

- A. A threat to public health and safety;
- B. Environmental damage; or
- C. A substantial injustice.

1987,c.800,S3.

APPENDIX B

Species Listing Review Worksheet

MAINE ENDANGERED AND THREATENED SPECIES LISTING REVIEW WORK SHEET
(to aid in applying Listing Guidelines (P. 7-12) of Handbook)

INSTRUCTIONS: Complete all appropriate sections as directed for species Qualifying for Consideration for Listing (P. 6 of Handbook).

Scientific Name:

Common Name:

Taxonomic Group (check one): mammal ____; fish ____; bird ____; amphib. ____; reptile ____; invert. ____.

SECTION A

1. Federal Status. Maine is included within the geographic boundaries of the federal listing and the species is federally listed as (check one):
 - a. ____ Endangered
 - b. ____ Threatened or Category I
 - c. ____ Category II
 - d. ____ none of the above
2. Population Model. A population viability analysis of the species has been done and indicates one of the following (check the one most applicable):
 - a. ____ a 30% or greater probability of extirpation from Maine within 20 years or 10 generations, whichever is longer
 - b. ____ a 20% or greater probability of extirpation from Maine within 30 years or 10 generations, whichever is longer.
 - c. ____ a 10% or greater probability of extirpation from Maine within 100 years.
 - d. ____ a PVA has not been done or is not available.

SECTION A SUMMARY: Circle the highest category recommended by this section:

If "a" was checked in either 1 OR 2, the species is:

ENDANGERED. (go to Sect. C)

If "b" was checked in either 1 OR 2, the species is at least:

THREATENED. (cont. to Sect.

B)

If "c" was checked in either 1 OR 2, the species is at least:
continue to Section B

SPECIAL CONCERN. (Cont. to Sect. B) otherwise

SECTION B NOTE: For species believed to be extirpated do not complete this section, GO TO Section C.

3. Population Size. The population is best described as (check the most appropriate one):
 - a. ____ non-migratory or otherwise isolated with fewer than 500 total individuals or 200 breeding individuals, or migratory or otherwise non-isolated with fewer than 250 total individuals or 100 breeding individuals.
 - b. ____ non-migratory or otherwise isolated with fewer than 1000 total individuals or 400 breeding individuals, or migratory or other-wise non-isolated with fewer than 500 total individuals or 200 breeding individuals.
 - c. ____ non-migratory or otherwise isolated with fewer than 2000 total individuals or 800 breeding individuals, or migratory or other-wise non-isolated with fewer than 1000 total individuals or 400 breeding individuals.
 - d. ____ greater than C.
 - e. ____ unknown.

4. Population Trend. After allowing for known cycles a decline in population or reproductive success has occurred as follows (check the most appropriate one):
- ☐ 50% or more within the past 5 years or 75% or more within the past 20 years.
 - ☐ 25% or more within the past 5 years or 50% or more within the past 20 years.
 - ☐ 25% or more within the past 10 years or 50% or more within the past 75 years.
 - ☐ none of the above.
 - ☐ unknown.
5. Population Distribution. During any portion of the annual cycle, (check the most appropriate one):
- ☐ More than 90% of the population is found at fewer than 5 discrete, disjunct sites.
 - ☐ More than 90% of the population is found at fewer than 8 discrete, disjunct sites.
 - ☐ More than 90% of the population is found at fewer than 12 discrete, disjunct sites.
 - ☐ none of the above.
 - ☐ unknown.
6. Population Fragmentation. (check the most appropriate one) The population is non-migratory or otherwise isolated (immigration rates less than 1 per year), its distribution is fragmented such that it occurs in discrete, disjunct sites, and:
- ☐ there are no more than 2 of those sites with populations of 250 or more individuals.
 - ☐ there are no more than 5 of those sites with populations of 250 or more individuals.
 - ☐ there are no more than 5 of those sites with populations of 1000 or more individuals.
 - ☐ none of the above.
 - ☐ unknown.
7. Endemism. Is the species endemic or nearly endemic to Maine? If yes, check A, B, and C. If no, check D.
- ☐ yes
 - ☐ yes
 - ☐ yes
 - ☐ no

SECTION B SUMMARY: Circle the highest category recommended by this section:

If two or more "a"s in this section are checked, the species is: **ENDANGERED**. (go to E)

If two or more "b"s in this section are checked, the species is: **THREATENED**. (go to E)

If "a" is checked in either 3, 4, 5, OR 6, the species is: **THREATENED**. (go to E)

If "b" is checked in either 3, 4, 5, OR 6, the species is at least: **SPECIAL CONCERN**. (continue to

C)

If any "c" in this section is checked, the species is at least: **SPECIAL CONCERN**. (continue to C) otherwise continue to Section C

SECTION C

8. Check all of the following that apply, if any:
- ☐ Lack of Data. It is believed the species could qualify for Endangered or Threatened listing, but insufficient data are available to make that determination.
 - ☐ Declines Elsewhere. The species occurs in Maine and is experiencing wide-spread declines throughout much of its range even if stable or increasing in Maine.
 - ☐ Extirpated. It was at one time indigenous to Maine but has not been documented as occurring in Maine for the past 50 years.

SECTION C SUMMARY: Circle the appropriate category for this section:If either “a” or “b” is checked, the species is at least: **SPECIAL CONCERN.**If “c” in this section is checked, the species is: **EXTIRPATED.**

If you feel the species may qualify for a higher listing category than has so far been indicated, continue to D; otherwise go to Section E.

SECTION D

9. Based on all available information, one or more factors including habitat or range loss, overutilization, disease, predation, inadequacy of existing regulatory regulations, or other man-made factors leading, through observation, inference, or projection to this species having a risk of extinction from Maine best characterized by the status of (circle one):

ENDANGERED; THREATENED; or SPECIAL CONCERN

SECTION E

Listing Category Recommendation (circle the highest category circled in Sections A, B, C, and D):

ENDANGERED THREATENED SPECIAL CONCERN EXTIRPATED
NONE

Comments:

NOTE: For species recommended for Endangered, Threatened, Special Concern, or Extirpated Status, the Species Listing Documentation Form must be completed and attached.

Name of recorder/reviewer _____

Date of review _____

APPENDIX C
MDIFW'S 1992 Procedures

STATE OF MAINE
Inter-Departmental Memorandum

Date: May 4,1992From Alan HutchinsonDept. Inland Fisheries and WildlifeSubject The scenario for revising Maine's list of endangered species

The current exercise of reviewing and revising the criteria and definitions for listing endangered species in Maine should be completed later this spring. Following that task, the Department will then put the new definitions and criteria to work, and embark on the review and revision of Maine's list of endangered species.

This memo outlines that second step: the review and revision of Maine's list of endangered species. I have attempted to capture the scenario as presented and discussed at the WRAS Group leaders' meeting of March 25, 1992. Based on that discussion, here is the proposal:

1. Five committees of MDIFW staff biologists (with some outside technical expertise, as needed) review the 5 taxonomic groups. Based on the best current knowledge, they draft recommendations for additions or deletions to the list. (A number of specific aspects of this step are explained in a footnote to this memo).
2. The draft changes are reviewed and receive approval from MDIFW administration to go out for peer, technical review and comment.
3. The staff committees send the draft changes out for peer, technical review and comment.
4. The staff committees receive, review, and as appropriate incorporate the comments into the recommended changes.
5. A public Workshop is held to present and discuss the proposed changes (similar to the Chewonki Workshop of 1985).
6. Final recommendations are prepared by the committees, with the appropriate documentation, and submitted to the Commissioner for approval. The changes specific to the Endangered and Threatened categories are submitted for rule-making.
7. The Endangered and Threatened category changes go through rule-making.
8. The revisions to the list are adopted.

(footnote to item #1):

Five committees of MDIFW staff biologists are formed to review species and recommend changes within five taxonomic groups:

Endangered Species List Memo

May 4, 1992

Page 2

1) invertebrates; 2) amphibians & reptiles; 3) fish; 4) mammals; and 5) birds. The Bird Group will oversee birds; the Mammal Group - mammals Fisheries Division biologists - fish; the E&T Group - amphibians and reptiles; and the E&T Group, Fisheries biologists and John Albright - invertebrates. Other MDIFW biologists may be assigned to the committees as appropriate (Section and Division Heads need to decide the appropriate level of staff involvement for this stage in the process). Outside technical expertise may also be included in the committees as needed. The E&T Group will assist all committees, will serve to provide standardization and continuity among them, and will periodically report on the progress to the Division and Section Heads.

APPENDIX D
NORTHEAST NONGAME TECHNICAL COMMITTEE'S LISTING GUIDELINES

GUIDELINES FOR DEVELOPING STATE LISTS OF ENDANGERED SPECIES

NORTHEAST NONGAME TECHNICAL COMMITTEE

29 March 1990

At our meeting of 25-27 October 1989, the Northeast Nongame Technical Committee discussed the identification of standardized criteria for use in developing and maintaining state lists of endangered and threatened species, as requested by the Northeast Wildlife Administrators. In particular, we discussed in detail the question of listing species that occur at the peripheries of their ranges within a given state. Following are suggested listing guidelines, including guidelines for listing and ranking peripheral populations.

There was general agreement by the Technical Committee that development and implementation of a standardized set of specific criteria for all of the northeastern states is probably impossible. As with deer seasons, for example, the development of state lists of endangered and threatened species is controlled in part by individual state legislative mandates, administrative structures, traditions, and politics. Several northeastern states already have in place their own sets of listing criteria and have well established lists of endangered and threatened species. These factors preclude adoption of a single set of rigid, specific criteria by all the northeastern states.

The Technical Committee has identified and agreed upon a general set of guidelines or principles to guide states in the listing process. These are presented below. Included are suggested guidelines for listing species that occur in states as peripheral populations.

Listing Guidelines

Any wild, free-ranging species (including subspecies or variety) of mammal, bird, reptile, amphibian, fish, invertebrate, or plant may be a candidate for listing. Candidates should be native species with an established history of occurrence over many years in the state, rather than exotics, introduced species, vagrants, accidentals, or recent pioneers. Recommended listing categories, in decreasing order of endangerment, are: extirpated, endangered, threatened, and species of special concern. Specific biological factors that should be considered in listing follow.

1. Population characteristics

- a. Abundance - Rarity alone may be enough of a threat to warrant listing. Species with small populations (<500 individuals) may be at risk for maintaining long-term genetic or demographic viability (Franklin 1980, Shaffer 1987), and should be considered for listing.

- b. Trend - Species that are experiencing significant population declines should be considered for listing. Species whose populations are declining over all or a significant portion of their range should take precedence over species that are declining locally or at the edge of their range.
 - c. Distribution - Species with limited distributions in a state should take precedence in the listing process over species with widespread in-state distributions. Even populations with large numbers of individuals, if restricted to extremely small geographic areas (eg. many invertebrates, colonial waterbirds, hibernating bats) may be vulnerable to catastrophic losses and local extirpations. In general, a species that occurs at the core of its range in a state should take precedence over a species that occurs there at the periphery of its range, all other factors being equal. However, peripheral populations of some species warrant and should be considered for listing at the state level (see discussion of peripherals that follows).
2. Taxonomic Status - In ranking candidates for listing, species should be given precedence over subspecies and morphs, although the latter two forms may also be listed. Monotypic species should have precedence over polytypic species, monotypic genera should have precedence over monotypic species, and so on up the taxonomic line.
3. Threat - Candidates for listing should be determined in part by the degree of threat (actual or potential) posed by any of the following factors: habitat loss or alteration, including environmental changes such as natural succession or climatic change; collection, harvest, or other human-caused mortality; disturbance; environmental contaminants; predation, competition, disease, or parasites. As noted in 1 a above, extreme rarity, by itself, can be considered a threat, because of the increased chance of random extinction posed to small populations by catastrophic events and demographic, environmental, and genetic stochasticity (Shaffer 1981).
4. Vulnerability - Listing priorities should be determined in part on the degree to which species are vulnerable to population decline or extirpation as the result of specialized habitat requirements or feeding niche, low reproductive potential, or other aspects of their life history and ecology.
5. Federal Listing - Any species listed as 'endangered or threatened by the U.S. Fish and Wildlife Service should be listed in an equivalent or higher category by any state that occurs within that species' range.
6. Peripheral populations - Peripheral populations are defined as populations that occur at or near the outer limits or edge of a species' range. Peripheral populations may be candidates for state listing, especially if they have long histories of existence and viability in a state and are currently faced with human-caused threats to their continued existence. Peripheral populations should be considered for listing on a case-by-case basis, using the same criteria presented above for non-peripheral species and additional guidelines that follow.

Guidelines For Dealing With Peripheral Populations

A difficult aspect of developing and maintaining state lists of endangered and threatened species is the question of how to treat populations that occur at the edge of a species' range. Species decline in abundance at the edges of their ranges. A species that occurs peripherally in a state may range from locally common to extremely rare. Rare peripheral populations are often considered for state listing, in large part because of their rarity. Arguments for and against including peripheral populations on state lists of endangered and threatened species are discussed below. These are followed by recommended guidelines for dealing with peripheral populations in the listing process.

Genetic considerations - It has been argued that peripheral populations should be candidates for state listing because their preservation is essential to preserving the entire complement of genetic diversity that exists across a species' range. This argument is based on the notion that because peripheral populations are often adapted to extremes of habitat or climate, these populations are likely to be genetically unique, or may exhibit genetic differentiation in the future.

This argument is only partly true, and is truer for some taxonomic groups than others. As long as local populations are not reproductively isolated from other populations, they are likely to contain all of the same alleles, i.e. all of the alternative forms of a given gene, found across that species' range. Low amounts of genetic interchange, as little as one individual migrating between populations per generation, are often sufficient to maintain the presence of all the same alleles in both populations (Allendorf 1983). Thus, a peripheral population is unlikely to contain alleles that are unique to a species, unless it is reproductively isolated from other populations of that species. On the other hand, small, reproductively isolated populations may actually lose some of their genetic diversity through alleles lost to founder effects or genetic drift (Frankel and Soule 1981).

However, genetic differentiation in the form of changes in allele frequencies often occurs between populations, even if there is considerable exchange of genetic material between the populations. Divergence in allele frequencies has been documented in plant, fish, and invertebrate populations separated by as little as 100 m (Liu and Godt 1983). Genetic differentiation through divergence in allele frequencies is most likely to occur in relatively sedentary species, such as plants, herptiles, small mammals, and many invertebrates, and in populations that are isolated from conspecifics by distance or other geographic or ecological barriers (e.g. habitat gradients or environmental extremes). This suggests that a peripheral population of bog turtles, salamanders, or orchids is more likely to have diverged genetically than might a peripheral population of migrant birds. In particular, populations that exhibit adaptive genetic differentiation in response to extremes of habitat or environment may represent unique genotypes worthy of preservation (Liu and Godt 1983).

A first line of defense - Another argument that favors preserving peripheral populations is that such action will guard against erosion of a species' range and that efforts to preserve peripheral populations provide a first line of defense that protects more central portions of a species' range. Also, because peripheral populations often occur near the edge of a species' physiological or ecological tolerances, these populations may be more susceptible to limiting factors, and may serve as an early warning signal for threats that might eventually affect the species through all or a major portion of its range.

Again, these arguments may be only partly true. Because species' ranges often expand and contract over time, periodic fluctuations in peripheral populations, including local pioneering or extinctions, can be expected. Where peripheral populations occur at densities too low to constitute viable populations, extensive management to preserve or increase these populations may be futile or, at best, a bad risk, and may contribute little to the overall welfare of the species. In addition, the factors most responsible for limiting a peripheral population may not be the same factors that control populations near the center of the species' range. It should be axiomatic, then, that the welfare of a species per se is more dependent on the status of populations near the center of its range than on the persistence of peripheral populations.

State versus regional priorities

Perhaps the most common argument put forth for preserving peripheral populations is that of preserving biological diversity within state borders. State endangered species laws have been developed to preserve biological diversity at the state level; they complement federal endangered species legislation that seeks to preserve species at the national level. A mandate of most state endangered and nongame wildlife programs is to preserve the native fauna and flora within their states. If one seeks to preserve the full compliment of a states' biological diversity, then this must include all species that occur in that state, even those that are considered peripheral.

The counter argument recommends that conservation focus on the preservation of species and regional populations, rather than on local and peripheral populations. As stated previously, the welfare of a species is more dependent on what happens to it near the center of its range or across a large portion of its range, rather than at its periphery. Thus, scarce conservation resources should not be directed at peripheral populations at the expense of managing core populations or significant portions of regional populations that may occur within a given state. Although the latter may be more common, they are, in the long run, of greater value to species preservation.

Summary

Given these considerations, we recommend that each species with peripheral populations be considered on a case-by-case basis during a state's listing process. The following general guidelines are suggested as a way to bring additional uniformity to the listing of peripheral populations.

- a) A species that occurs near the edge of its range in a state should not be given precedence in the listing process over a candidate species whose range is more nearly centered within that state. A species should be secured across the central

portions of its range before substantial management attention and resources are directed at its periphery. This may require regional coordination between state wildlife agencies, the U.S. Fish and Wildlife Service, and private conservation organizations.

- b) Precedence should be given to peripheral populations of species that have an established history of occurrence within a state and are stable or declining, rather than to peripheral populations that are increasing in abundance or expanding their range and pioneering into new areas.
- c) Precedence should be given to peripheral populations that have the greatest likelihood of genetic uniqueness. These include disjunct populations, peripheral populations of relatively sedentary species, and populations that exhibit differential adaptation to extremes of habitat or environment.
- d) Given that state lists of endangered and threatened species often serve to prioritize management and recovery actions, designate which taxa will receive special regulatory protection, and focus public attention, managers should recognize the constraints that apply when developing conservation programs for peripheral populations. Peripheral populations may be severely limited by habitat, climate, or other factors, and may occur at levels that are near or below those required for long-term viability. Even intensive management may have little chance of increasing the abundance or expanding the range of a peripheral population or even insuring its continued viability.

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Endangered and Nongame Wildlife Project
Maine Department of Inland Fisheries and Wildlife

Maine Endangered and Threatened Species

The following species are listed as endangered or threatened in Maine. Click on a species to display a two-page fact sheet for that species.

Note: **F** = **Federally Endangered** under the U.S. Endangered Species Act
f = **federally threatened** under the U.S. Endangered Species Act
S = **State Endangered** under the Maine Endangered Species Act
s = **state threatened** under the Maine Endangered Species Act

Birds

[Razorbill](#) - *Alca torda* **s**
[Atlantic Puffin](#) - *Fratercula arctica* **s**
[Harlequin Duck](#) - *Histrionicus histrionicus* **s**
[Golden Eagle](#) - *Aquila chrysaetos* **S**
[Bald Eagle](#) - *Haliaeetus leucocephalus* **s f**
[Peregrine Falcon](#) - *Falco peregrinus* (breeding population only) **S**
[Eskimo Curlew](#) - *Numenius borealis* **F**
[Piping Plover](#) - *Charadrius melodus* **S f**
[Roseate Tern](#) - *Sterna dougallii* **S F**
[Least Tern](#) - *Sterna antillarum* **S**
[Black Tern](#) - *Chlidonias niger* **S**
[Arctic Tern](#) - *Sterna paradisaea* **s**
[Upland Sandpiper](#) - *Bartramia longicauda* **s**
[Sedge Wren](#) - *Cistothorus platensis* **S**
[American Pipit](#) - *Anthus rubescens* (breeding population only) **S**
[Grasshopper Sparrow](#) - *Ammodramus savannarum* **S**

Reptiles and Amphibians

[Blanding's Turtle](#) - *Emys blandingii* **S**
[Spotted Turtle](#) - *Clemmys guttata* **s**
[Box Turtle](#) - *Terrapene carolina* **S**
[Loggerhead](#) - *Caretta caretta* **f**
[Leatherback](#) - *Dermochelys coriacea* **F**
[Atlantic Ridley](#) - *Lepidochelys kempi* **F**
[Black Racer](#) - *Coluber constrictor* **S**

Mammals

[Northern Bog Lemming](#) - *Synaptomys borealis* **s**
[Gray Wolf](#) - *Canis lupus* **F**
[Eastern Cougar](#) - *Felis concolor cougar* **F** [Canada Lynx](#) - *Lynx canadensis* **f**
[Northern Right Whale](#) - *Eubalaena glacialis* **F**
[Humpback Whale](#) - *Megaptera novaeangliae* **F**
[Finback Whale](#) - *Balaenoptera physalus* **F**
[Sperm Whale](#) - *Physeter catodon* **F**
[Sei Whale](#) - *Balaenoptera borealis* **F**

Fish

[Atlantic Salmon](#) - *Salmo salar* **F**

[Swamp Darter](#) - *Etheostoma fusiforme* **s**

[Shortnose Sturgeon](#) - *Acipenser brevirostrum* **F**

Mollusks

[Tidewater Mucket](#) - *Leptodea ochracea* **s**

[Yellow Lampmussel](#) - *Lampsilis cariosa* **s**

Beetles

[American Burying Beetle](#) - *Nicrophorus americanus* **F**

Mayflies

[Roaring Brook Mayfly](#) - *Epeorus frisoni* **S**

[Tomah Mayfly](#) - *Siphonisca aerodromia* **s**

Damselflies and Dragonflies

[Ringed Boghaunter](#) - *Williamsonia lintneri* **S**

[Pygmy Snaketail](#) - *Ophiogomphus howei* **s**

Butterflies and Moths

[Clayton's Copper](#) - *Lycaena dorcas claytoni* **S**

[Edwards' Hairstreak](#) - *Satyrrium edwardsii* **S**

[Hessel's Hairstreak](#) - *Callophrys hesseli* **S**

[Katahdin Arctic](#) - *Oeneis polixenes katahdin* **S**

[Karner Blue](#) - *Lycaeides melissa samuelis* **F**

[Twilight Moth](#) - *Lycia rachelae* **s**

[Pine Barrens Zanclognatha](#) - *Zanclognatha martha* **s**

SPECIAL CONCERN SPECIES IN MAINE**7/14/05**

(This is an administrative category having no legal standing under Maine's Endangered Species statutes)

<u>Taxa</u>	<u>Common Name (Scientific Name)</u>
Amphibians	SPRING SALAMANDER (<u>Gyrinophilus porphyriticus</u>) FOUR-TOED SALAMANDER (<u>Hemidactylium scutatum</u>) NORTHERN LEOPARD FROG (<u>Rana pipiens</u>)
Birds	LEACH'S STORM-PETREL (<u>Oceanodroma leucorhoa</u>) GREAT CORMORANT (<u>Phalacrocorax carbo</u>) LEAST BITTERN (<u>Ixobrychus exilis</u>) BLACK-CROWNED NIGHT-HERON (<u>Nycticorax nycticorax</u>) BARROW'S GOLDENEYE (<u>Bucephala islandica</u>) COOPER'S HAWK (<u>Accipiter cooperii</u>) NORTHERN GOSHAWK (<u>Accipiter gentilis</u>) YELLOW RAIL (<u>Coturnicops noveboracensis</u>) COMMON MOORHEN (<u>Gallinula chloropus</u>) AMERICAN COOT (<u>Fulica americana</u>) WHIMBREL (<u>Numenius phaeopus</u>) RED-NECKED PHALAROPE (<u>Phalaropus lobatus</u>) LAUGHING GULL (<u>Larus atricilla</u>) COMMON TERN (<u>Sterna hirundo</u>) EASTERN SCREECH-OWL (<u>Otus asio</u>) SHORT-EARED OWL (<u>Asio flammeus</u>) THREE-TOED WOODPECKER (<u>Picoides tridactylus</u>) OLIVE-SIDED FLYCATCHER (<u>Contopus cooperi</u>) BICKNELL'S THRUSH (<u>Catharus bicknelli</u>) MIGRANT LOGGERHEAD SHRIKE (<u>Lanius ludovicianus migrans</u>) VESPER SPARROW (<u>Pooecetes gramineus</u>) EASTERN MEADOWLARK (<u>Sturnella magna</u>) RUSTY BLACKBIRD (<u>Euphagus carolinus</u>) ORCHARD ORIOLE (<u>Icterus spurius</u>)
Fish	LANDLOCKED ARCTIC CHARR (<u>Salvelinus alpinus oquassa</u>) REDFIN PICKEREL (<u>Esox americanus americanus</u>) BRIDLE SHINER (<u>Notropis bifrenatus</u>) CREEK CHUBSUCKER (<u>Erimyzon oblongus</u>)
Mammals	LONG-TAILED SHREW (<u>Sorex dispar</u>) LITTLE BROWN BAT (<u>Myotis lucifugus</u>) EASTERN SMALL-FOOTED MYOTIS (<u>Myotis leibii</u>) NORTHERN MYOTIS (<u>Myotis septentrionalis</u>)

Mammals

SILVER-HAIRED BAT (Lasionycteris noctivagans)
 EASTERN PIPISTRELLE (Pipistrellus subflavus)
 BIG BROWN BAT (Eptesicus fuscus)
 EASTERN RED BAT (Lasiurus borealis)
 HOARY BAT (Lasiurus cinereus)
 NEW ENGLAND COTTONTAIL (Sylvilagus transitionalis)
 SOUTHERN FLYING SQUIRREL (Glaucomys volans)
 PENOBSCOT MEADOW VOLE (Microtus pennsylvanicus shattucki)
 YELLOW-NOSED VOLE (Microtus chrotorrhinus)
 GRAY WOLF (Canis lupus)
 CANADA LYNX (Felis lynx canadensis)
 EASTERN COUGAR (Puma concolor couguar)

Reptiles

WOOD TURTLE (Clemmys insculpta)
 COMMON MUSK TURTLE (Sternotherus odoratus)
 BROWN SNAKE (Storeria dekayi)
 RIBBON SNAKE (Thamnophis sauritus)

Mayflies

AN ARMORED MAYFLY (Baetisca berneri)
 AN ARMORED MAYFLY (Baetisca carolina)
 A CLEFT-FOOTED MINNOW MAYFLY (Metretopus borealis)
 A FLAT-HEADED MAYFLY (Rhithrogena brunneotincta)

Butterflies and Moths

SPICEBUSH SWALLOWTAIL (Papilio troilus)
 JUNIPER HAIRSTREAK (Callophrys gryneus)
 WESTERN PINE ELFEN (Incisalia eryphon)
 BOG ELFEN (Callophrys lanoraieensis)
 CROWBERRY BLUE (Lycaeides idas empetri)
 REGAL FRITILLARY (Speyeria idalia)
 BOG FRITILLARY (Boloria eunomia dawsoni)
 TAWNY CRESCENT (Phyciodes batesii)
 BARRENS ITAME (Itame sp.1)
 PINE DEVIL (Citheronia sepulchralis)
 THE BUCKMOTH (Hemileuca maia maia)
 SOUTHERN PINE SPHINX (Lapara coniferarum)
 HUCKLEBERRY SPHINX (Paonias astylus)
 OBLIQUE ZALE (Zale obliqua)
 PINE BARRENS ZALE (Zale sp.1)
 PRECIOUS UNDERWING (Catocala pretiosa pretiosa)
 SIMILAR UNDERWING (Catocala similis)
 ACADIAN SWORDGRASS MOTH (Xylena thoracica)
 PINE PINION (Lithophane lepida lepida)
 THAXTER'S PINION (Lithophane thaxteri)
 ANNOINTED SALLOW (Pyreferra ceromatica)
 RED-WINGED SALLOW (Xystocheilus rufago)

Butterflies and Moths

A NOCTUID MOTH (Chaetagnalea cerata)
 BARRENS CHAETAGLAEA (Chaetagnalea tremula)
 BARRENS XYLOTYPE (Xylotype capax)

Damselflies and Dragonflies

RAPIDS CLUBTAIL (Gomphus quadricolor)*
 COBRA CLUBTAIL (Gomphus vastus)*
 ARROW CLUBTAIL (Stylurus spiniceps)*
 SOUTHERN PYGMY CLUBTAIL (Lanthus vernalis)
 EXTRA-STRIPED SNAKETAIL (Ophiogomphus anomalus)
 BOREAL SNAKETAIL (Ophiogomphus colubrinus)
 COMMON SANDDRAGON (Progomphus obscurus)
 QUEBEC EMERALD (Somatochlora brevicincta)
 NEW ENGLAND BLUET (Enallagma laterale)
 TULE BLUET (Enallagma carunculatum)
 BIG BLUET (Enallagma durum)*
 SCARLET BLUET (Enallagma pictum)
 DUSKY DANCER (Argia translata)
 CITRINE FORKTAIL (Ishnura hastata)
 RAMBURS FORKTAIL (Ishnura ramburii)
 SEDGE DARNER (Aeshna juncea)
 COMET DARNER (Anax longipes)
 SWAMP DARNER (Epiaeschna heros)
 SPATTERDOCK DARNER (Rhionaeschna mutata)
 ARROWHEAD SPIKETAIL (Cordulegaster obliqua)
 BROADTAILED SHADOWDRAGON (Neurocordulia michaeli)
 CANADA WHITEFACE (Leucorrhinia patricia)
 NEEDHAMS SKIMMER (Libellula needhami)
 VARIEGATED MEADOWHAWK (Sympetrum corruptum)
 CAROLINA SADDLEBAGS (Tamea carolina)
 BLACK SADDLEBAGS (Tamea lacerata)

* = proposed threatened

Mollusks

TRIANGLE FLOATER (Alasmidonta undulata)
 BROOK FLOATER (Alasmidonta varicosa)
 CREEPER (Strophitus undulatus)
 MYSTERY VERTIGO (Vertigo paradoxa)

FEDERALLY LISTED, PROPOSED,
AND SPECIES OF FEDERAL CONCERN IN MAINE
(revised April, 2003)

	Common Name	Scientific Name	Distribution	Status
Fishes:	Atlantic salmon	<i>Salmo salar</i>	Endangered in Dennys, Machias, E. Machias, Narraguagas, Pleasant, Duck Trap, Cove Brook, Sheepscot	E
	Shortnose sturgeon*	<i>Acipenser brevirostrum</i>	Kennebec, Penobscot Rivers	E
Reptiles:	Atlantic ridley turtle*	<i>Lepidochelys kempii</i>	Pelagic, summer resident	E
	Leatherback turtle*	<i>Dermochelys coriacea</i>	Pelagic, summer resident	E
	Loggerhead turtle*	<i>Caretta caretta</i>	Pelagic, summer resident	T
	Blanding's turtle	<i>Emydoidea blandingii</i>	York and Cumberland Counties	FSC
Birds:	American peregrine falcon	<i>Falco peregrinus anatum</i>	statewide	D
	Bald eagle	<i>Haliaeetus leucocephalus</i>	statewide	T
	Bicknell's thrush	<i>Catharus bicknelli</i>	Western mountains and Katahdin	FSC
	Black tern	<i>Chlidonias niger</i>	Sebastcook R. watershed, Portage L. (Aroostook Co.), and eastern Maine	FSC
	Harlequin duck	<i>Histrionicus histrionicus</i>	Coastal, Eastport to Cape Neddick, York County	FSC
	Loggerhead shrike	<i>Lanius ludovicianus</i>	Possibly statewide	FSC
	Northern goshawk	<i>Accipiter gentilis</i>	statewide	FSC
	Piping plover	<i>Charadrius melodus</i>	Coastal Sagadahoc, Cumberland, and York Co.	T
	Roseate tern	<i>Sterna dougallii dougallii</i>	Coastal statewide	E
Mammals:	Gray wolf	<i>Canis lupus</i>	Possibly northern Maine	T
	Eastern cougar	<i>Felis concolor cougar</i>	Possibly statewide	E
	Blue whale*	<i>Balaenoptera musculus</i>	Oceanic	E
	Finback whale*	<i>Balaenoptera physalus</i>	Oceanic	E
	Humpback whale*	<i>Megaptera novaeangliae</i>	Oceanic	E
	Right whale*	<i>Eubalaena spp. (All species)</i>	Oceanic	E
	Sei whale*	<i>Balaenoptera borealis</i>	Oceanic	E
	Sperm whale*	<i>Physeter catodon</i>	Oceanic	E
	Eastern small-footed bat	<i>Myotis leibii</i>	statewide	FSC
	New England cottontail rabbit	<i>Sylvilagus transitionalis</i>	York, Androscoggin, Kennebec, Sagadahoc, Lincoln Counties	FSC
	Penobscot meadow vole	<i>Microtus pennsylvanicus shattucki</i>	Penobscot Bay	FSC
	Northern bog lemming	<i>Synaptomys borealis</i>	Somerset, Piscataquis, Aroostook Counties	FSC
	Canada lynx	<i>Felis lynx canadensis</i>	Franklin, Somerset, Piscataquis, Aroostook, Penobscot Counties	T
Invertebrates:	Brook floater	<i>Alasmidonta varicosa</i>	Coastal drainages York to Washington Counties	FSC
	Yellow lampmussel	<i>Lampsilis cariosa</i>	Penobscot, St. George, lower Kennebec watersheds	FSC
	Tomah mayfly	<i>Siphonisca aerodromia</i>	All but southern Maine	FSC
	Pygmy snaketail dragonfly	<i>Ophiogomphus howei</i>	Saco, Crooked, Aroostook, Penobscot, St. Croix, Machias Rivers	FSC
	Extra-striped snaketail dragonfly	<i>Ophiogomphus anomalus</i>	Saco, Androscoggin, Kennebec,	FSC

	Common Name	Scientific Name	Distribution	Status
			Penobscot, Aroostook, St. Croix, and Downeast coastal Rivers	
	Ringed boghaunter dragonfly	<i>Williamsonia linteri</i>	Southern York County	FSC
	Clayton's copper butterfly	<i>Lycaena dorcas claytoni</i>	Penobscot, Aroostook, Piscataquis Counties	FSC
	Ceromatic noctuid moth	<i>Pyreffera ceromatica</i>	York County	FSC
	Regal fritillary butterfly	<i>Speyeria idalia</i>	Likely extirpated	FSC
	Chestnut clearwing moth	<i>Synanthedon castancae</i>	York County	FSC
	Lateral bluet damselfly	<i>Enallagma laterale</i>	Coastal ponds from Penobscot Bay to York County	FSC
Plants:	Common Name	Scientific Name	Distribution	Status
	Small whorled pogonia	<i>Isotria medeoloides</i>	York, Kennebec, Cumberland, and Oxford Co.	T
	Furbish's lousewort	<i>Pedicularis furbishiae</i>	Aroostook County	E
	Eastern prairie fringed orchid	<i>Plantanthera leucophaea</i>	Aroostook County	T
	Orono sedge	<i>Carex oronensis</i>		FSC
	Variable sedge	<i>Carex polymorpha</i>		FSC
	Hawkweed	<i>Hieracium robinsonii</i>		FSC
	Blazingstar	<i>Liatris borealis</i>		FSC
	Square-stemmed monkeyflower	<i>Mimulus rigens colpophilus</i>		FSC
	Pondweed	<i>Potamogeton confervoides</i>		FSC
	Boott's rattlesnake root	<i>Prenanthes boottii</i>		FSC
	Long's bulrush	<i>Scirpus longii</i>		FSC
	Gaspé peninsula arrow-grass	<i>Triglochin gaspense</i>		FSC

KEY:

Status	Definition
E	Endangered: A taxon "in danger of extinction throughout all or a significant portion of its range".
T	Threatened: A taxon "likely to become endangered within the foreseeable future throughout all or a significant portion of its range".
P	Proposed: A taxon proposed for official listing as endangered or threatened.
FSC	Federal species of concern: Species which may or may not be listed in the future (formerly C2 candidate species, or species under consideration for listing for which there is insufficient information to support listing).
D	Delisted species, requiring 5 years of population monitoring.
*	Principal responsibility for these species is vested with the National Marine Fisheries Service.